



## Variation in Part-Time Work among Pediatric Subspecialties

Gary L. Freed, MD, MPH<sup>1,2,3</sup>, Debra M. Boyer, MD, MHPE<sup>4</sup>, Kenton D. Van, MA<sup>1,2</sup>, Michelle L. Macy, MD, MS<sup>1,5</sup>, Julie McCormick, MA<sup>1,2</sup>, and Laurel K. Leslie, MD, MPH<sup>6,7</sup>

**Objective** To assess the part-time workforce and average hours worked per week among pediatric subspecialists in the 15 medical subspecialties certified by the American Board of Pediatrics.

**Study design** We examined data from pediatric subspecialists who enrolled in Maintenance of Certification with the American Board of Pediatrics from 2009 to 2015. Data were collected via an online survey. Providers indicated whether they worked full time or part time and estimated the average number of hours worked per week in clinical, research, education, and administrative tasks, excluding time on call. We calculated and compared the range of hours worked by those in full- and part-time positions overall, by demographic characteristics, and by subspecialty.

**Results** Overall, 9.6% of subspecialists worked part time. There was significant variation in part-time employment rates between subspecialties, ranging from 3.8% among critical care pediatricians to 22.9% among developmental-behavioral pediatricians. Women, American medical graduates, and physicians older than 70 years of age reported higher rates of part-time employment than men, international medical graduates, and younger physicians. There was marked variation in the number of hours worked across subspecialties. Most, but not all, full-time subspecialists reported working at least 40 hours per week. More than one-half of physicians working part time in hematology and oncology, pulmonology, and transplant hepatology reported working at least 40 hours per week.

**Conclusions** There are unique patterns of part-time employment and hours worked per week among pediatric medical subspecialists that make simple head counts inadequate to determine the effective workforce. Our findings are limited to the 15 American Board of Pediatrics-certified medical subspecialties. (*J Pediatr* 2018;195:263-8).

Determining the current physician workforce is a complex and nuanced exercise. At the most basic level, simple head counts of physicians in aggregate are used to make national statements regarding the supply of these health care providers.<sup>1-3</sup> Despite the limitations of such a strategy, head counts are used by a variety of stakeholders, including institutions, training programs, the federal government, and some state governments, to determine areas of physician shortage and the potential need to increase specific training programs.<sup>4</sup>

Simple head counts operate under the assumption that each physician works the same number of hours and, therefore, that part-time practice does not affect the available physician workforce. In reality, the proportion of physicians who report working part time varies significantly by sex, age, and specialty,<sup>5-7</sup> which may have a differential impact on the workforce. The definition of part-time work has been difficult to establish and may differ by institution, employer, or specialty. Recent research has shown that some part-time physicians work more hours than some full-time physicians within the same specialty.<sup>8</sup>

In pediatrics, the issue of part-time positions within the workforce is especially important because of the sex composition of the field<sup>9</sup> and the fact that women more often work part time than men.<sup>6,8,10,11</sup> At present, approximately 75% of pediatricians completing residency each year are women.<sup>9,12</sup> In contrast, women make up 54% of internal medicine physicians, 41% of surgeons, and 27% of radiologists.<sup>13</sup> Concurrently, the greatest contemporary concern with regard to the availability of the pediatric workforce is among subspecialists, with some individual subspecialties perceived as having significant shortages. Although the proportion of general pediatricians working part time seems to have plateaued at approximately 25%, the proportion of subspecialists working part time seems to be growing.<sup>6,8,10,11</sup> Variation in reported part-time work among pediatric subspecialists may reflect differences in their unique professional cultures, potentially in combination with their sex and generational demography.

Understanding the magnitude of the part-time component of the workforce will provide a greater appreciation of their current capacities and need for trainees. However, there are no reliable data available regarding the potential variation in the rates of part-time employment, nor the numbers of hours worked by part-time or full-time physicians among the different pediatric subspecialties. Thus,

From the <sup>1</sup>Child Health Evaluation and Research (CHEAR) Center; <sup>2</sup>Division of General Pediatrics, Department of Pediatrics and Communicable Diseases; <sup>3</sup>Department of Health Management and Policy, School of Public Health, University of Michigan, Ann Arbor, MI; <sup>4</sup>Division of Respiratory Diseases, Boston Children's Hospital, Harvard Medical School, Boston, MA; <sup>5</sup>Department of Emergency Medicine, University of Michigan, Ann Arbor, MI; <sup>6</sup>American Board of Pediatrics Foundation, Chapel Hill, NC; and <sup>7</sup>Tufts University School of Medicine, Boston MA

Supported by the American Board of Pediatrics Foundation (N023287 [to G.F.]). The authors declare no conflicts of interest.

0022-3476/\$ - see front matter. © 2017 Elsevier Inc. All rights reserved.

<https://doi.org/10.1016/j.jpeds.2017.11.060>

ABP American Board of Pediatrics  
MOC Maintenance of Certification

understanding the nature of part-time practice among pediatricians is essential for accurate workforce assessments.

To address these limitations, we sought to determine the rates of part-time employment among pediatric subspecialists and to better define the range of hours worked by those in full-time and part-time positions overall and by subspecialty. We hypothesized that there is significant variation in the proportion of part-time and full-time employment among pediatric subspecialists by sex, age, and subspecialty; that there is variation in the hours that part-time physicians work among pediatric subspecialists by sex, age, and subspecialty; and that some part-time pediatric subspecialists work more hours than full-time pediatric subspecialists in the same subspecialty.

## Methods

In collaboration with the American Board of Pediatrics (ABP) Research Advisory Committee, the research team developed a structured questionnaire designed to be completed in 10 minutes or less and administered at the time of enrollment in the ABP's Maintenance of Certification (MOC) program. The survey included questions regarding the current practice characteristics of general pediatricians and subspecialists including full-time or part-time employment and average hours worked per week. Many previous studies of part-time work have been limited by the lack of a definition of part-time status with regard to hours actually worked. To address this issue, we did not seek to impose a definition of part-time status, but rather allowed respondents to simply designate whether they were employed in a full-time or part-time position. We then asked respondents to select the category that best fit the total hours they worked on average each week (including clinical care, administration, educational efforts or research and excluding time on call). Categories ranged from less than 20 hours per week to more than 60 hours per week in 20-hour increments. This approach allowed us to identify variation in both the designation of part-time status and the reported hours worked each week for both full-time and part-time subspecialists.

The ABP MOC online application process started in October 2009 and incorporated the structured questionnaire. Each year, a unique cohort of pediatricians must enroll in MOC based on the timing in their individual MOC cycle. Survey data from all pediatric subspecialists who enrolled in the MOC program from 2009 through 2015 and completed the survey were included in these analyses. The survey used branching logic so that different respondents may have completed different numbers of items depending on their responses to specific questions, including whether they were general pediatricians or subspecialists.

### Statistical Analyses

De-identified data from the surveys as well as demographic data from the ABP's Certification Management System were transmitted from the ABP to the research team at the Child Health Evaluation and Research Center in Microsoft Excel (Microsoft, Inc, Redmond, Washington) format for analysis.

The Excel files were reviewed for accuracy in terms of survey branching and imported into the SAS system for statistical analysis (SAS, version 9.4; Research Triangle Park, North Carolina). Because the MOC enrollment process occurs in 5-year cycles, it was possible that a small number of individual subspecialists would have completed more than 1 survey during the study period. In any such cases, only the most recent survey response was used in the analyses. This was accomplished using a "dummy variable" provided by the ABP that is used to track pediatricians across surveys.

Analyses were performed for all self-identified pediatric subspecialists, excluding those who identified as a subspecialist in a non-ABP subspecialty (eg, neurology). If respondents declared themselves to be generalists, they completed a different pathway of the survey. We did not provide the opportunity for respondents to assign a fractional component of their work to general vs subspecialty care. Data were pooled from 6 consecutive years because of the small number of pediatricians in some subspecialties. The very few respondents who identified themselves as practicing in more than 3 subspecialties were excluded from the sample. For those respondents who reported they practiced in 2 or 3 different subspecialties, we created duplicate records (one for each subspecialty) to ensure we captured an inclusive count for each subspecialty. Frequency distributions by full-time or part-time status and categorical average number of hours worked each week were calculated for demographic variables and subspecialty.

We generated  $\chi^2$  statistics on the basis of cross-tabulation frequencies to examine the relationship of specific demographic items (sex, age category, medical education [International vs American], holds an academic appointment, and conducts research) to part-time and full-time work status (self-defined by the respondent for each subspecialty). A *P* value of less than .05 was considered to be statistically significant. This project was approved by the Institutional Review Board for the Protection of Human Subjects at the University of Michigan.

## Results

Of the 43 358 deduplicated enrollees in MOC who completed the surveys from 2009 to 2015, 14 631 (33.7%) self-identified as practicing in at least 1 of the 15 recognized pediatric subspecialties and are the focus of analysis. Of these, 522 (3.6%) reported practicing in more than one subspecialty. The overall response rate for the MOC surveys was 82.4%.

Overall, women made up 46.5% of the respondents (*n* = 6808). Most of the respondents were 40-49 (38%; *n* = 5554) or 50-59 (34.1%; *n* = 4996) years of age. Very few were aged 70 years or older (0.7%; *n* = 98). American medical graduates were 71.6% (*n* = 10 469). Academic appointments were held by 75.5% (*n* = 11 047) of respondents and research was conducted by 18.1% (*n* = 2646) (**Table 1**).

Overall, 9.6% of subspecialists (*n* = 1401) reported they worked part time with similar proportions reporting part-time work each year of the study overall and within each subspecialty. Female subspecialists were much more likely to work

**Table I. Demographics of sample (N = 14 631)\***

Variables	% (N)
Sex	
Women	46.5 (6808)
Men	53.5 (7823)
Age, years	
30-39	16.5 (2407)
40-49	38.0 (5554)
50-59	34.1 (4996)
60-69	10.8 (1576)
≥70	0.7 (98)
Medical education	
American medical graduate	71.6 (10 469)
International medical graduate	28.4 (4162)
Holds an academic appointment (n = 14 633)	
Yes	75.5 (11 047)
No	24.5 (3586)
Conducts research (n = 14 633)	
Yes	18.1 (2646)
No	81.9 (11 986)
Work status (n = 14 633)	
Full time	90.4 (13 232)
Part time	9.6 (1401)

\*Unduplicated count of pediatric subspecialists enrolling in MOC from 2009-2015. Two participants did not provide responses to demographic questions.

part time than male subspecialists (17.5% vs 2.7%, respectively;  $P < .0001$ ). There were only small, yet statistically significant, differences in rates of part-time work by age of the subspecialist with the exception of a markedly higher rate (28.6%) among those 70 years of age and older. The smallest proportion to be working part time were those in their 50s (8.1%). International medical graduate subspecialists were much less likely to work part time than their American medical graduate counterparts (6.2% vs 10.9%;  $P < .0001$ ). Those subspecialists who reported having an academic appointment were less likely to report part-time employment than those working in other settings (8.2% vs 13.8%, respectively;  $P < .0001$ ), as were those who conduct research compared with those who do not (8.2% vs 10.9%, respectively;  $P < .0001$ ) (Table II).

Table II presents the categorical number of hours worked per week for subspecialists in full-time or part-time positions by demographic characteristics. The categorical numbers of hours worked differed for women and men in full-time and in part-time positions, with fewer women reporting they work 40 hours or more in both groups. For both full-time and part-time positions, subspecialty pediatricians who had academic appointments and who conduct research reported more hours worked than those without academic appointments and who do not conduct research. Greater proportions of part-time subspecialty pediatricians with academic appointments and who conduct research reported working 40 or more hours per week.

Rates of self-defined part-time practice in each specialty are presented in Table III. Developmental and behavioral pediatrics was the subspecialty with the highest rate of part-time practice at 22.9% and critical care was the lowest, with 3.8%. Three subspecialties had 20% or more of their workforce reporting part-time status, namely, developmental and behavioral pediatrics, adolescent medicine, and child abuse pediatrics.

Ten of the 15 subspecialties had 10% or less of their workforce reporting they worked part time.

There was a marked variation in report of the average number of hours worked each week by full- and part-time subspecialists, both within and among the subspecialties. Most, but not all, full-time subspecialists reported working at least 40 hours per week. Emergency medicine physicians reported the highest proportion of full-time subspecialists working fewer than 40 hours per week (27%). Several subspecialties ( $n = 8$ ) had fewer than 2% of full-time respondents who reported working less than 40 hours per week, including cardiology, critical care, gastroenterology, hematology and oncology, infectious diseases, nephrology, rheumatology, and transplant hepatology. All but one subspecialty (emergency medicine) had less than 20% of their part-time physicians reporting they worked at least 40 hours per week and 3 subspecialties (hematology and oncology, pulmonology, and transplant hepatology) had more than 50% of their part-time physicians reporting working at least 40 hours per week. Some part-time subspecialists reported working more hours than some of their full-time counterparts within their same subspecialty.

## Discussion

Among the most important findings in this study was documentation of the variation in rates of part-time employment among the pediatric subspecialties and the variation among the subspecialties in the number of hours worked per week. Rates of part-time employment varied from a high of 22.9% among developmental-behavioral pediatricians, who have almost exclusively outpatient practices, to a low of 3.8% among critical care pediatricians, who have greater inpatient clinical roles. Those subspecialties with greater inpatient clinical roles tended to have fewer part-time members. We also found significant variation in the number of hours worked across subspecialties. A majority of full-time subspecialists (58%) in both critical care and transplant hepatology reported working 60 or more hours per week, the greatest proportion of any subspecialty. All subspecialties had self-identified part-time physicians who reported they worked more than 60 hours per week; the greatest proportion of such physicians were in rheumatology (15%) and pulmonology (10.9%). The reasons for such high numbers of hours worked by part-time subspecialists in certain fields deserves further study. Potential explanations include the excess demand for clinical service, the balance of inpatient and outpatient care, and involvement in teaching, administrative, and research activities in addition to clinical care.

When discussing the available subspecialty workforce, frequent concern is expressed regarding both the pipeline as well as the current number of pediatric subspecialists. However, few data exist regarding the proportion of subspecialists who work part time and how those numbers vary by individual subspecialty. These data, paired with the reported number of hours worked per week, will be important for assessments of the effective or available workforce in a given subspecialty. Assessing the average hours worked each week reported by self-defined full-time and part-time subspecialists also will help

**Table II.** Work status and hours per week by demographic characteristics of sample\*

Variables	% (N)	Hours per week			
		<20 % (N)	20 to <40 % (N)	40 to <60 % (N)	≥60 % (N)
<b>Sex (n = 14 631)</b>					
Full time					
Women	82.5 (5616)	0.4(21)	7.5 (423)	53.7 (3017)	38.4 (2155)
Men	97.3 (7614)	0.3 (20)	4.3 (328)	47.7 (3634)	47.7 (3632)
Part time					
Women	17.5 (1192)	12.9 (154)	57.5 (685)	25.6 (305)	4.0 (48)
Men	2.7 (209)	16.8 (35)	51.2 (107)	22.5 (47)	9.6 (20)
<b>Age, y (n = 14 631)</b>					
Full time					
30-39	89.2 (2146)	0.3 (7)	7.6 (163)	56.0 (1201)	36.1 (775)
40-49	90.6 (5033)	0.2 (10)	5.5 (278)	49.7 (2500)	44.6 (2245)
50-59	91.9 (4590)	0.4 (19)	5.1 (236)	47.3 (2170)	47.2 (2165)
60-69	88.3 (1391)	0.4 (5)	4.7 (66)	53.1 (738)	41.8 (582)
≥70	71.4 (70)	0.0 (0)	11.4 (8)	60.0 (42)	28.6 (20)
Part time					
30-39	10.8 (261)	10.3 (27)	62.1 (162)	23.8 (62)	3.8 (10)
40-49	9.4 (521)	15.2 (79)	53.4 (278)	26.5 (138)	5.0 (26)
50-59	8.1 (406)	12.3 (50)	59.6 (242)	23.7 (96)	4.4 (18)
60-69	11.7 (185)	13.0 (24)	51.9 (96)	28.1 (52)	7.0 (13)
≥70	28.6 (28)	32.1 (9)	50.0 (14)	14.3 (4)	3.6 (1)
<b>Medical education (n = 14 631)</b>					
Full time					
American medical graduate	89.1 (9324)	0.3 (25)	5.6 (522)	49.8 (4646)	44.3 (4131)
International medical graduate	93.8 (3906)	0.4 (16)	5.9 (229)	51.3 (2005)	42.4 (1656)
Part time					
American medical graduate	10.9 (1145)	13.5 (154)	56.6 (648)	25.7 (294)	4.3 (49)
International medical graduate	6.2 (256)	13.7 (35)	56.3 (144)	22.7 (58)	7.4 (19)
<b>Academic appointment (N = 14 633)</b>					
Full time					
Yes	91.8 (10 139)	0.2 (23)	4.5 (457)	48.3 (4900)	46.9 (4759)
No	86.2 (3093)	0.6 (18)	9.5 (294)	56.7 (1753)	33.2 (1028)
Part time					
Yes	8.2 (908)	10.0 (91)	54.7 (497)	29.5 (268)	5.7 (52)
No	13.8 (493)	19.9 (98)	59.8 (295)	17.0 (84)	3.3 (16)
<b>Conducts research (N = 14 633)</b>					
Full time					
Yes	91.8 (2558)	0.2 (5)	1.2 (30)	43.4 (1111)	55.2 (1412)
No	89.1 (10 673)	0.3 (36)	6.8 (721)	51.9 (5541)	41.0 (4375)
Part time					
Yes	8.2 (88)	5.7 (5)	48.9 (43)	35.2 (31)	10.2 (9)
No	10.9 (1313)	14.0 (184)	57.0 (749)	24.5 (321)	4.5 (59)

Differences among sex, age bands, and medical education were statistically significant;  $P < .01$ . Differences among academic position and conducts research were statistically significant;  $P < .0001$ . Differences comparing full time by medical education and part time by medical education not statistically significant ( $P = .13$  and  $P = .17$ , respectively). Differences comparing part time by age category not statistically significant ( $P = .06$ ).  
 \*Unduplicated count of pediatric subspecialists enrolling in MOC from 2009 to 2015. Two participants did not provide responses to demographic questions.

employers, as well as physicians themselves, to understand the workforce marketplace in individual subspecialties. Further, this information may be valuable to medical students and residents as they make individual career choices.

Each of the subspecialties had a smaller proportion of its physicians who self-reported as working part time than general pediatricians. The most recent data indicate that approximately 25% of general pediatricians work part time, including data on general pediatricians from the ABP’s MOC enrollment survey conducted in 2014.<sup>10,11</sup> Some subspecialties approach this percentage of a part-time workforce. However, because each subspecialty is composed of many fewer physicians than exist in general pediatrics,<sup>9</sup> even relatively small proportions of part-time subspecialists can have a significant

impact on the available workforce, with regard to clinical capacity, the ability to participate in medical education efforts, and research to drive innovation and discovery. Regardless, the variation among the subspecialties found in this report highlights the importance of individual assessments of their workforce composition.

The changing demography of the pediatric workforce, with a growing number of women and a decreasing number of baby boomers, has potential implications for subspecialty availability at the present time and in coming years. A more complete understanding of the implications of the demographic changes in the pediatric workforce and the associated increase in part-time pediatric subspecialists will allow for more focused and deliberate strategies to be undertaken with regard to training

**Table III. Work status and hours worked by subspecialty (N = 14 633)\***

Subspecialties	% (N)	Hours per Week			
		<20 % (N)	20 to <40 % (N)	40 to <60 % (N)	≥60 % (N)
Adolescent medicine, n = 644					
Full time	79.2 (510)	0.8 (4)	6.5 (33)	62.7 (320)	30.0 (153)
Part time	20.8 (134)	12.7 (17)	65.7 (88)	19.4 (26)	2.2 (3)
Cardiology, n = 1428					
Full time	94.0 (1342)	0.3 (4)	1.6 (21)	45.2 (607)	52.9 (710)
Part time	6.0 (86)	8.1 (7)	46.5 (40)	37.2 (32)	8.1 (7)
Child abuse pediatrics, n = 288					
Full time	80.2 (231)	0.4 (1)	3.9 (9)	59.3 (137)	36.4 (84)
Part time	19.8 (57)	12.3 (7)	66.7 (38)	15.8 (9)	5.3 (3)
Critical care medicine, n = 1573					
Full time	96.2 (1513)	0.3 (5)	1.5 (22)	40.1 (607)	58.1 (879)
Part time	3.8 (60)	13.3 (8)	40.0 (24)	40.0 (24)	6.7 (4)
Developmental-behavioral pediatrics, n = 789					
Full time	77.1 (608)	0.8 (5)	7.1 (43)	58.1 (353)	34.0 (207)
Part time	22.9 (181)	12.7 (23)	64.6 (117)	19.3 (35)	3.3 (6)
Emergency medicine, n = 1897					
Full time	86.1 (1634)	0.5 (8)	26.3 (429)	55.4 (906)	17.8 (291)
Part-time	13.9 (263)	17.5 (46)	69.6 (183)	11.8 (31)	1.1 (3)
Endocrinology, n = 688					
Full time	86.0 (592)	0.2 (1)	2.7 (16)	63.9 (378)	33.3 (197)
Part time	14.0 (96)	8.3 (8)	59.4 (57)	26.0 (25)	6.3 (6)
Gastroenterology, n = 837					
Full time	93.9 (786)	0.0 (0)	1.7 (13)	49.7 (391)	48.6 (382)
Part time	6.1 (51)	23.5 (12)	45.1 (23)	27.5 (14)	3.9 (2)
Hematologist-oncologist, n = 1092					
Full time	93.4 (1020)	0.2 (2)	1.6 (16)	43.5 (444)	54.7 (558)
Part time	6.6 (72)	11.1 (8)	34.7 (25)	48.6 (35)	5.6 (4)
Infectious diseases, n = 753					
Full time	90.6 (682)	0.1 (1)	1.8 (12)	59.4 (405)	38.7 (264)
Part time	9.4 (71)	8.5 (6)	63.4 (45)	21.1 (15)	7.0 (5)
Neonatal-perinatal medicine, n = 3247					
Full time	93.2 (3027)	0.3 (8)	3.8 (115)	48.3 (1463)	47.6 (1441)
Part time	6.8 (220)	14.5 (32)	49.1 (108)	29.5 (65)	6.8 (15)
Nephrology, n = 350					
Full time	90.9 (318)	0.3 (1)	1.6 (5)	45.6 (145)	52.5 (167)
Part time	9.1 (32)	21.9 (7)	43.8 (14)	31.3 (10)	3.1 (1)
Pulmonology, n = 761					
Full time	92.9 (707)	0.1 (1)	2.0 (14)	51.2 (362)	46.7 (330)
Part time	7.1 (54)	13.0 (7)	35.2 (19)	40.7 (22)	11.1 (6)
Rheumatology, n = 203					
Full time	90.1 (183)	0.0 (0)	1.6 (3)	55.7 (102)	42.6 (78)
Part time	9.9 (20)	0.0 (0)	55.0 (11)	30.0 (6)	15.0 (3)
Transplant hepatology, n = 83					
Full time	95.2 (79)	0.0 (0)	0.0 (0)	41.8 (33)	58.2 (46)
Part time	4.8 (4)	25.0 (1)	0.0 (0)	75.0 (3)	0.0 (0)
Total, n = 14 633					
Full time	90.4 (13 232)	0.3 (41)	5.7 (751)	50.3 (6653)	43.7 (5787)
Part time	9.6 (1401)	13.5 (189)	56.5 (792)	25.1 (352)	4.9 (68)

\*Unduplicated count of pediatric subspecialists enrolling in MOC from 2009 to 2015.

sufficient numbers of pediatric subspecialists to at least maintain the current effective workforce. Efforts to address the realities of both sex and generational change now and into the future are needed to ensure the workforce required for the care of children.<sup>5</sup>

Women comprise an ever-increasing proportion of pediatric subspecialists.<sup>9</sup> At the same time, our data indicate that female subspecialists are much more likely to work part time than their male counterparts. This reality must be addressed in future workforce planning and may require an increase in the number of trainees in specific subspecialties to maintain the effective workforce at current levels. However, the nature

of our dataset limit the availability of examining part-time status for younger pediatricians. A recent study of new subspecialty pediatricians found that rates of part-time practice were 8% overall, with 12% of women working part time and 2% of men doing so.<sup>8</sup> Perhaps future studies could assess the part-time versus full-time intentions of this next generation of pediatric subspecialists.

An additional issue is the number of hours worked as reported by our respondents. Our results suggest that many subspecialists may have negotiated part-time positions with full-time work hours. There were multiple instances of part-time subspecialists working more hours than their full-time

counterparts. Although we do not have detailed information to know if these differences are driven by institutional, regional, or other forces, this finding has significant implications for issues of sex equity as more women than men report being employed in part-time positions. Future studies should focus on this issue and determine what, if anything, needs to be done to ensure equity in compensation and expectation in the pediatric workforce.

The data used in this study are self-reported, and no independent verification was undertaken. Physicians were asked about their average work hours over the past 6 months, and those hours could be higher or lower than averages over the remainder of the year depending on the annual distribution of clinical care and other responsibilities. Physicians self-identified as working part time or full time based on their own definitions, which may vary by intuition, region, and subspecialty. We did not collect information about compensation for work and therefore cannot address compensation issues associated with part-time work. We also did not ask providers to report on employment or hours worked in other medical and nonmedical endeavors (eg, consulting, industry). Additionally, because of the small number of pediatricians in some subspecialties, pooling of these data across years was required to ensure adequate numbers for analyses. As such, these data reflect part-time practice over this time period in aggregate, but the small sample size for some subspecialty groups prohibited trend analyses. It is possible there are continuing trends in part-time practice among pediatric subspecialists that would not be appreciated by this study. Replication of this study in future years will be required for such an assessment. The sample is limited to physicians who have opted to participate in MOC with ABP and is not representative of physicians who have elected to allow their certification to lapse or those who maintain their certification with another board. ■

Submitted for publication Aug 3, 2017; last revision received Oct 19, 2017; accepted Nov 30, 2017

Reprint requests: Gary L. Freed, MD, MPH, Child Health Evaluation and Research (CHEAR) Center, University of Michigan, 300 North Ingalls Building, Room 6D18, Ann Arbor, MI 48109-0456. E-mail: gfreed@med.umich.edu

## References

1. Dall T, West T, Chakrabarti R, Iacobucci W. The complexities of physician supply and demand: projections from 2013 to 2025. Washington (DC): Prepared for the Association of American Medical Colleges; 2015 [https://www.aamc.org/download/426242/data/ihsreportdownload.pdf?cm\\_mmc=AAMC\\_-\\_ScientificAffairs\\_-\\_PDF\\_-\\_ihsreport](https://www.aamc.org/download/426242/data/ihsreportdownload.pdf?cm_mmc=AAMC_-_ScientificAffairs_-_PDF_-_ihsreport). Accessed March 16, 2017.
2. Freed GL, Stockman JA. Oversimplifying primary care supply and shortages. *JAMA* 2009;301:1920-2.
3. Landon BE, Reschovsky J, Blumenthal D. Changes in career satisfaction among primary care and specialist physicians, 1997-2001. *JAMA* 2003;289:442-9.
4. Steinwald A. Primary care professionals: recent supply trends, projections, and valuation of services. Statement to the Committee on Health, Education, Labor, and Pensions, U.S. Senate. Washington (DC): Government Accountability Office; 2008.
5. Spector ND, Cull W, Daniels SR, Gilhooly J, Hall J, Horn I, et al. Gender and generational influences on the pediatric workforce and practice. *Pediatrics* 2014;133:1112-21.
6. Freed GL, Moran LM, Van KD, Leslie LK. Current workforce of pediatric subspecialists in the United States. *Pediatrics* 2017;139:e20163604.
7. Peckham C. Medscape physician compensation report 2015. Medscape. 2015. <http://www.medscape.com/slideshow/compensation-2015-overview-6006679#1>. Accessed July 26, 2017.
8. Freed GL, Moran LM, Althouse LA, Van KD, Leslie LK. Jobs and career plans of new pediatric subspecialists. *Pediatrics* 2016;137:e20153298.
9. The American Board of Pediatrics. American Board of Pediatrics Inc., 2015-2016 workforce data. 2016. <https://www.abp.org/content/workforce-data>. Accessed March 14, 2017.
10. Cull WL, Frintner MP, O'Conner KG, Olson LM. Pediatricians working part-time has plateaued. *J Pediatr* 2016;171:294-9.
11. Freed GL, Moran LM, Van KD, Leslie LK. Current workforce of general pediatricians in the United States. *Pediatrics* 2016;137:e20154242.
12. Brotherton SE, Etzel SI. Graduate medical education, 2011-2012. *JAMA* 2012;308:2264-79.
13. Vasser L. How medical specialties vary by gender. *AMA Wire*. Feb 18, 2015. <https://wire.ama-assn.org/education/how-medical-specialties-vary-gender> Accessed March 30, 2017.